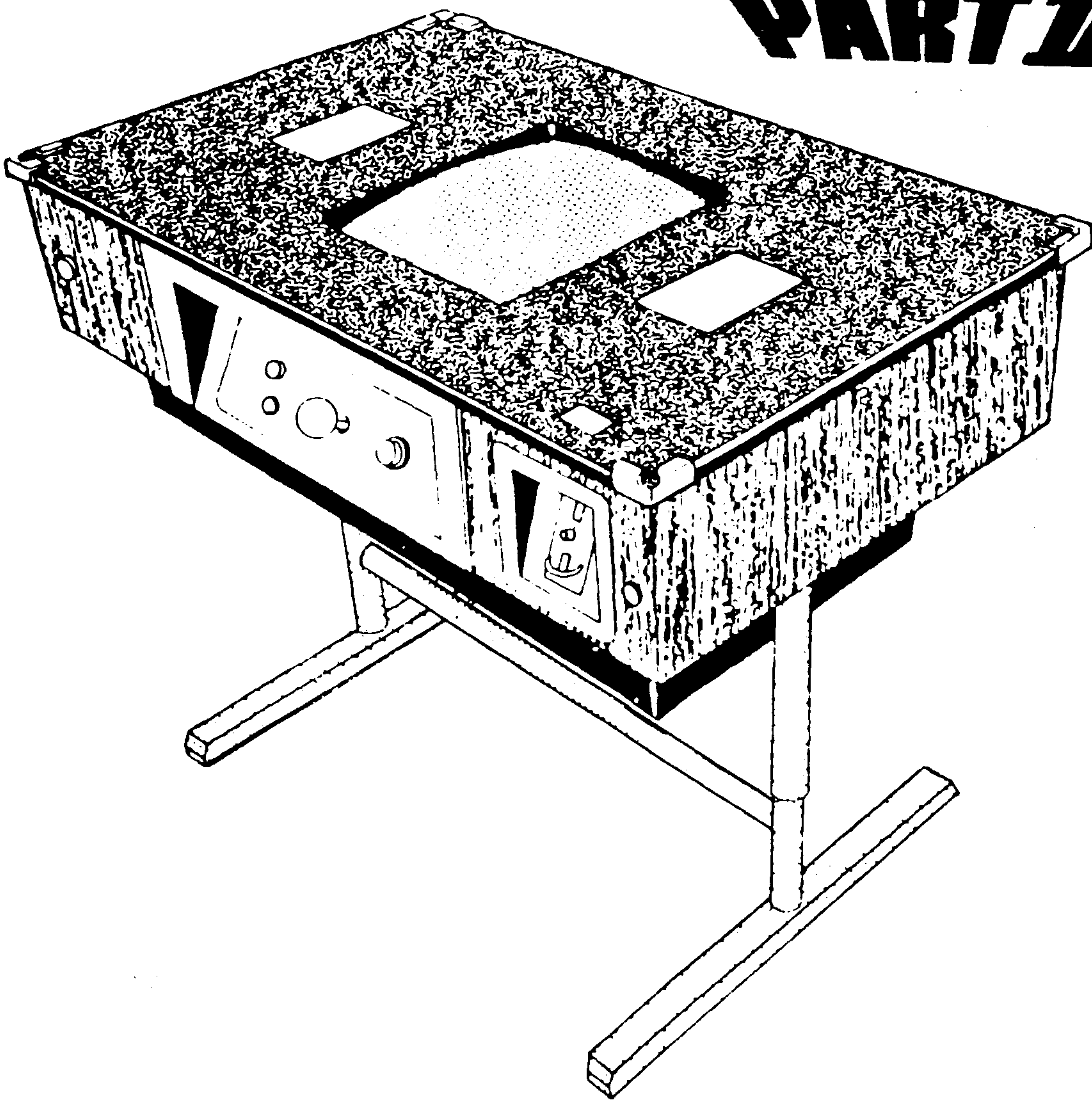
COLOR SPACE INVADERS PART II



PARTS CATALOG

TAITO ®

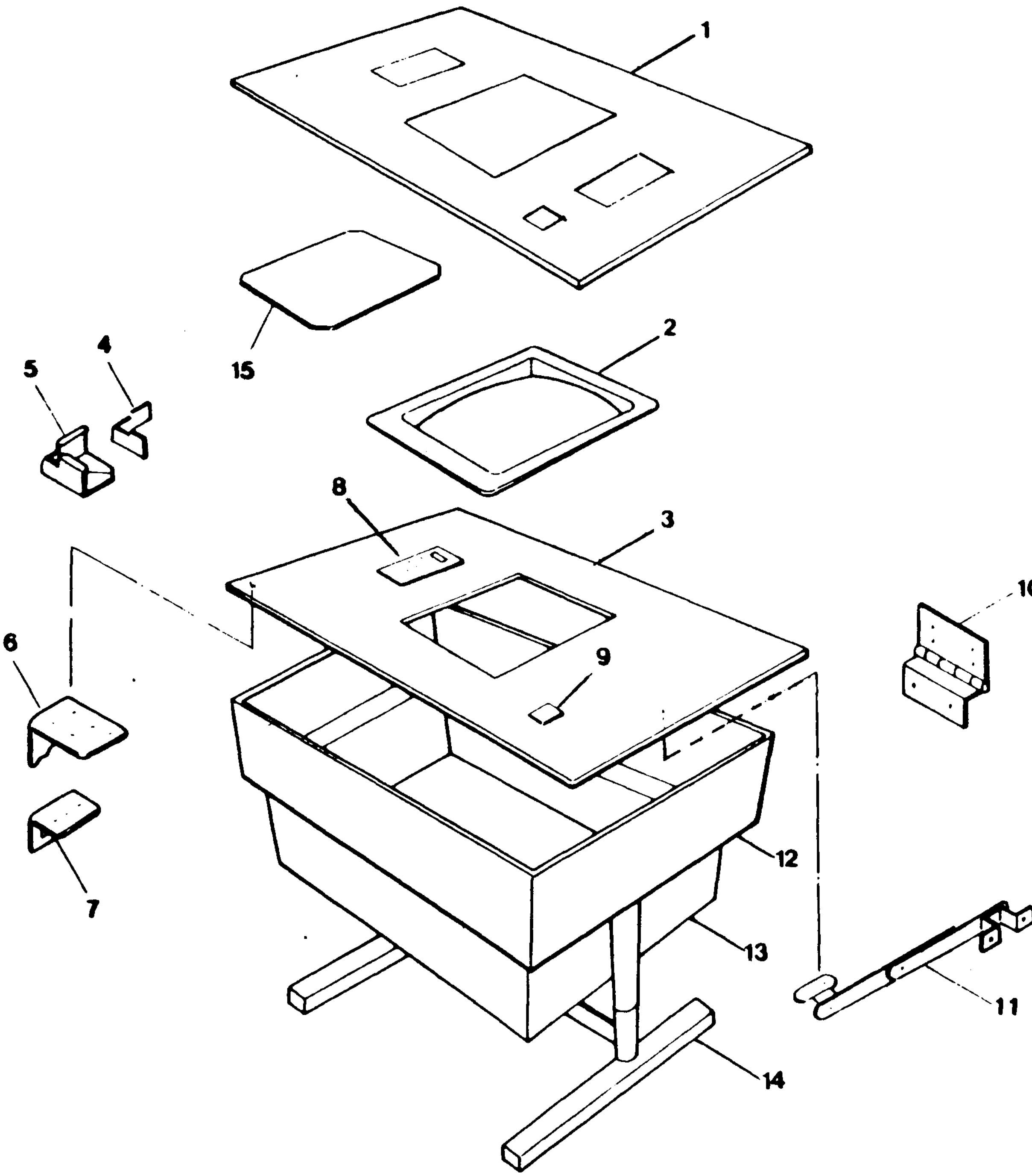
TAITO AMERICA CORPORATION

1256 Estes Avenue, Elk Grove Village, IL 60007

960021

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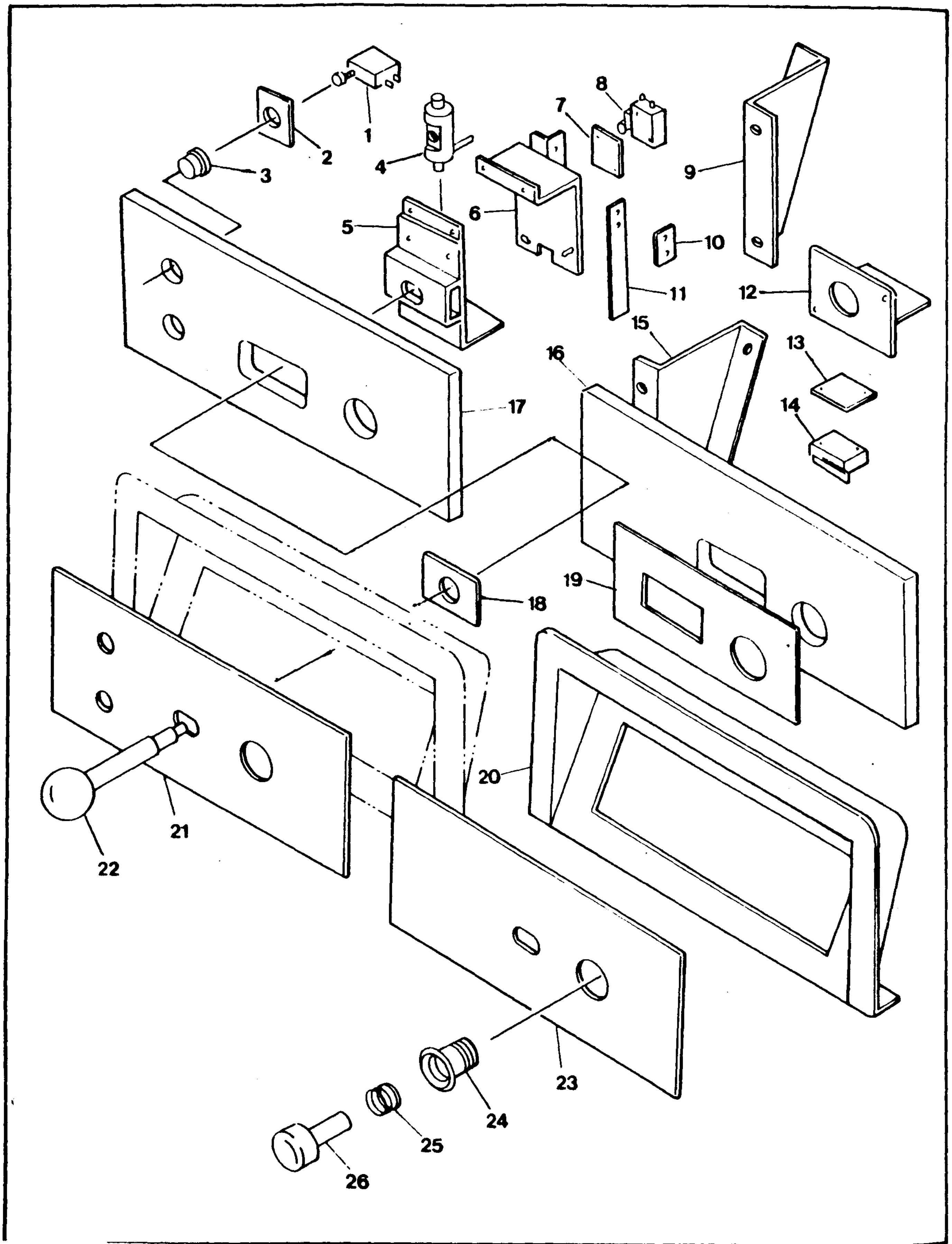
CABINET ASS'Y



CABINET ASSEMBLY

ITEM:	PART NO:	REF. NO:	DESCRIPTION:
1.	998573	CV090003	TABLE TOP GLASS
2.	998580	AA019549	VIDEO MASK
3.	999000	CV010002	TOP BOARD
4.	998584	AA019545	GLASS BUMPER
5.	998662	AA019593	CORNER BRACKET
6.	998663	AA013605	LOCK BRACKET
7.	998666	AA013603	HOOK
8.	999054	PV070003	INSTRUCTION CARD (A)
	999055	PV070004	INSTRUCTION CARD (B)
9.	999052	AA029521	COIN STICKER
10.	998664	TW060001	HINGE ASSEMBLY
11.	998665	AA016553	HINGE ASSEMBLY
12.	999047	CV010006	TABLE BOX
13.	998655	CV030024	BOTTOM BOX
14.	998653	AA016556	TABLE LEG
15.	998579	CV090021	COLOR PLATE

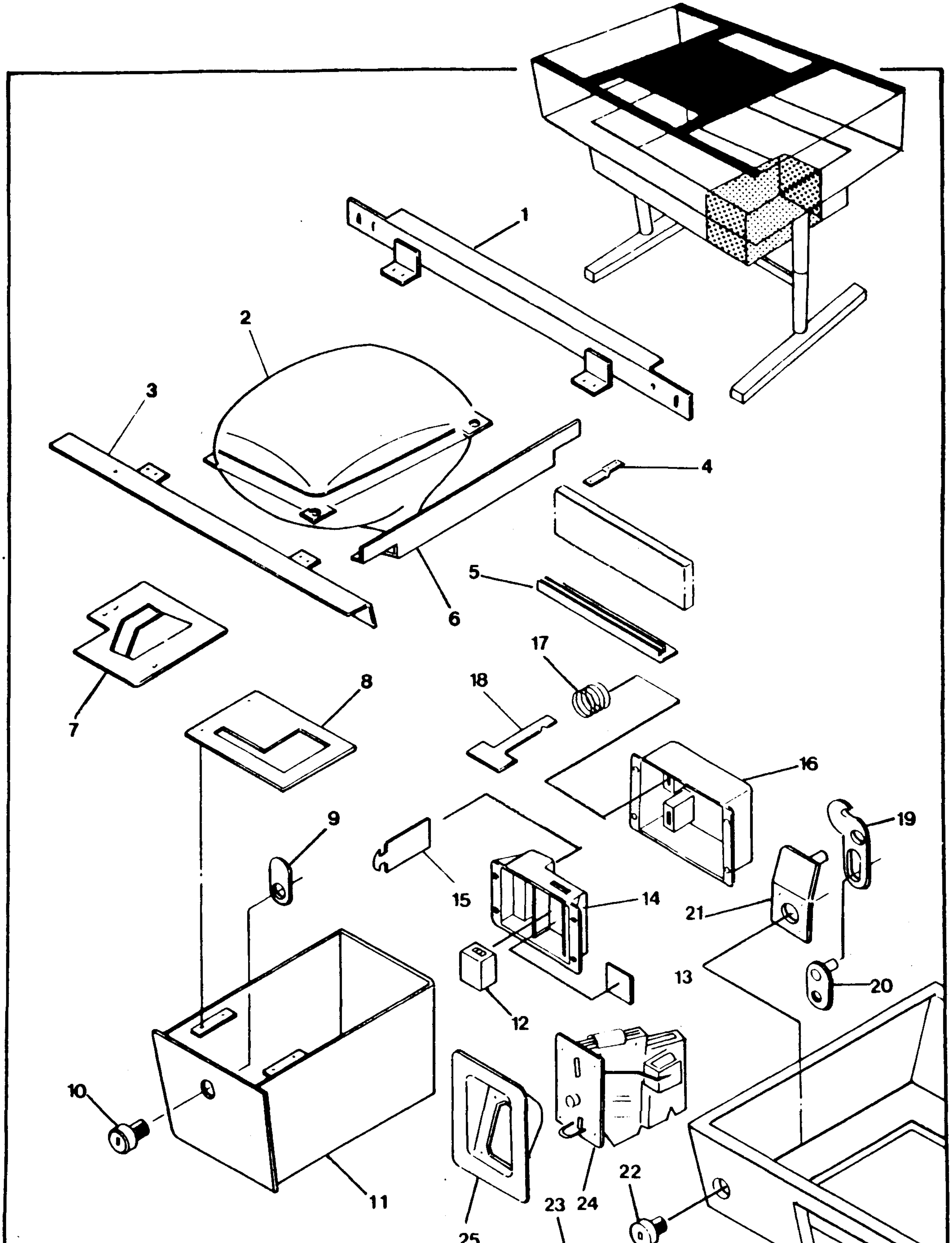
CONTROL PANEL ASS'Y



CONTROL PANEL ASSEMBLY

ITEM:	PART NO:	REF. NO:	DESCRIPTION:
1.	998281	AA052511	PUSH BUTTON SWITCH VAQ-4R(OMRONV-1C2)
2.	998690	TE030008	SWITCH PLATE
3.	998588	AA019535	PUSH BUTTON
4.	998678	WT020001	SHAFT
5.	998677	WT030004	BASE BRACKET
6.	998676	WT030005	MS MOUNTING BRACKET
7.	998520	AA019504	INSULATOR TYPE-V
8.	998282	AA052532	MICRO SWITCH AH71555(OMRONV-10FL22)
9.	998681	TW030015	CONTROL BOARD BRACKET (B)
10.	999698	WT030007	WASHER
11.	998740	WT050001	PLATE SPRING
12.	998682	WP030002	PUSH SWITCH BRACKET
13.	998520	AA019504	INSULATOR TYPE-V
14.	020501	AA052531	MICRO SWITCH VL-11L
15.	998680	TW030014	CONTROL BOARD BRACKET (A)
16.	999025	TV010002	CONTROL BOARD (B)
17.	999024	TV010001	CONTROL BOARD (A)
18.	998586	WT090002	MASK PLATE
19.	999023	CV090011	SPACER
20.	998587	AA019552	CONTROL PANEL
21.	998696	PV070001	CONTROL PLATE (A)
22.	998675	CV020002	LEVER
23.	998697	PV070002	CONTROL PLATE (B)
24.	999013	AA019534	PUSH BUTTON HOUSING, RED
25.	370000	BP050001	SPRING (A)
26.	999011	AA019533	PUSH BUTTON, RED

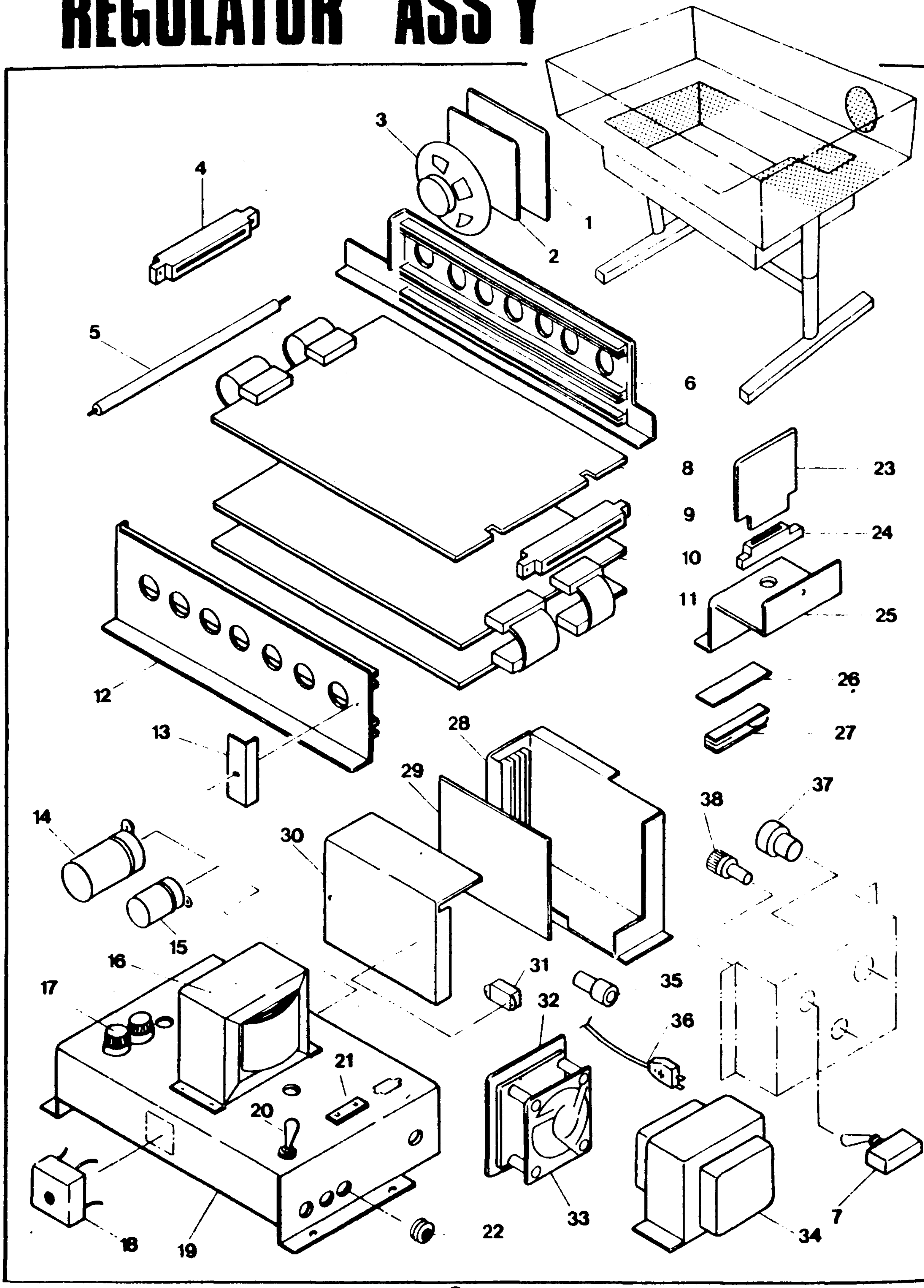
VIDEO AND CABINET ASS'Y



VIDEO AND CABINET ASSEMBLY

ITEM:	PART NO:	REF. NO:	DESCRIPTION:
1.	998698	CV030026	SUPPORT BRACKET (C)
2.	998980	AAM10103	VIDEO 14" COLOR MONITOR
3.	998699	CV030027	SUPPORT BRACKET (D)
4.	998704	CV030028	VIDEO CIRCUIT BOARD SUPPORT
5.	998788	TV090009	GUIDE RAIL
6.	998705	CV030025	VIDEO BRACKET
7.	998700	AA013520	COIN CHUTE (C)
8.	998658	CV030003	GUIDE PLATE
9.	998657	AA013511	LOCK PLATE
10.	998656	AA016501	LOCK AND KEY
11.	998659	CV030002	CASH BOX
12.	998955	AA051717	CAOUNTER ME-5
13.	999027	AA018558	PACKING
14.	998582	AA019559	COUNTER BOX
15.	998693	AA013619	CONTACT PLATE (B)
16.	998589	AA019558	CONTACT PLATE GUIDE
17.	998739	WT050002	SPRING
18.	998692	AA013618	CONTACT PLATE (A)
19.	998673	AA013604	LOCK LEVER
20.	998672	AA013603	LOCK PLATE
21.	998671	AA013602	LOCK LEVER PIN
22.	600002	AA016559	SERVICE LOCK #7900
23.	999030	AA016560	SERVICE KEY #7900
24.	500027	AA052512	25¢ COIN REJECTOR
25.	998581	AA019551	COIN ENTRY COVER

PRINTED BOARD AND REGULATOR ASS'Y

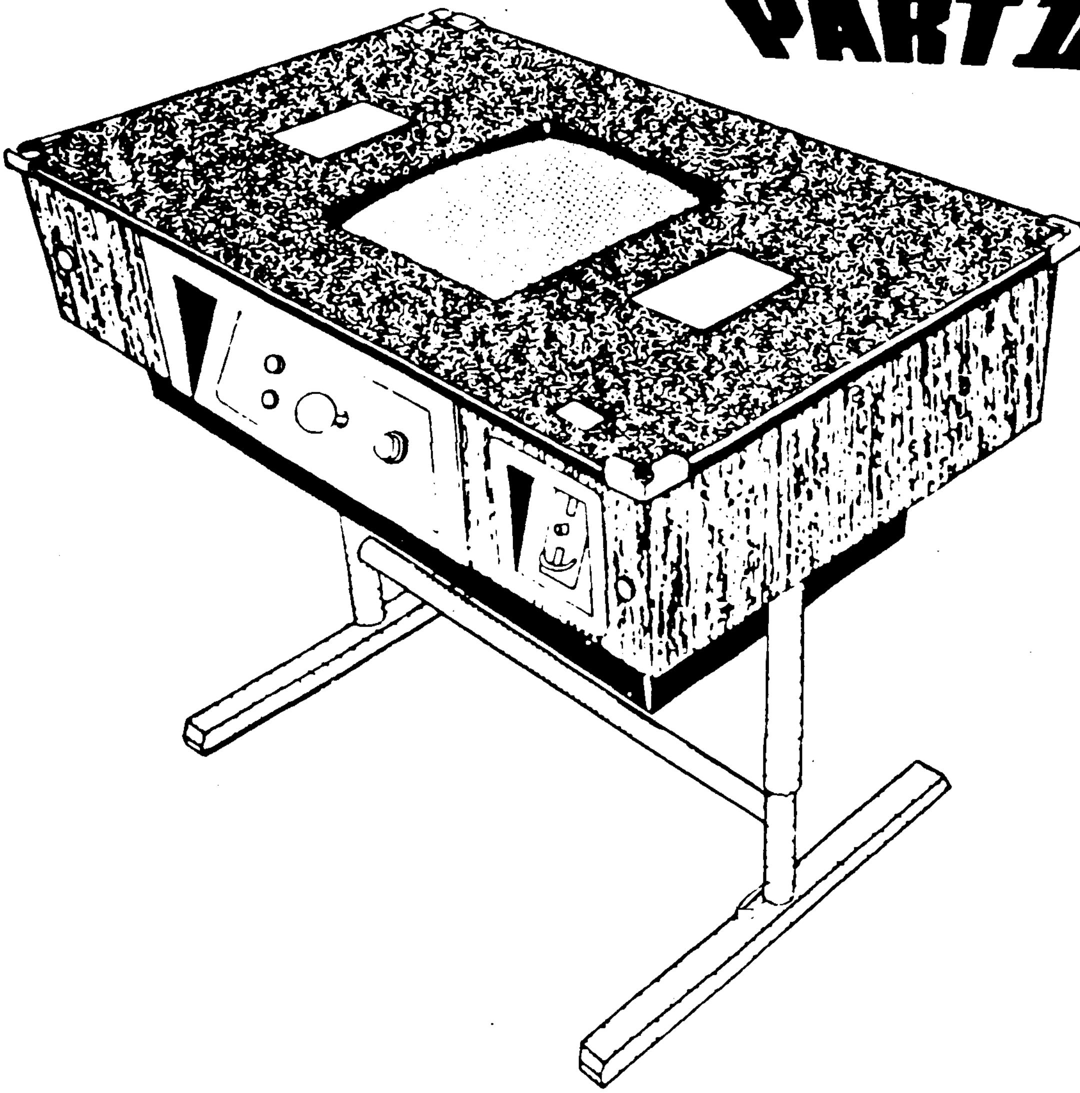


PRINTED BOARD AND REGULATOR ASSEMBLY

ITEM:	PART NO:	REF. NO:	DESCRIPTION:
1.	998674	WN030015	PUNCHING METAL
2.	999026	WN090007	NET
3.	998961	AAT71001	SPEAKER, 8 OHM, 5 W., 12CM.
4.	998442	AA055949	AMPLEAF CONNECTOR, 18P
5.	998686	TU020001	SHAFT
6.	998699	AA019547	P.C. BOARD GUIDE (A)
7.	998284	AA052501	TOGGLE SWITCH S-301
8.	998894	PVN00004	PV-GAME P.C. BOARD ASSEMBLY
9.	998442	AA055949	AMPLEAF CONNECTOR, 18P
10.	998905	CVN00004	CV-CPU P.C. BOARD ASSEMBLY (B)
11.	998892	PVN00002	PV-CPU P.C. BOARD ASSEMBLY
12.	998685	WT090008	P.C. BOARD GUIDE (B)
13.	998698	CV030022	STOP BRACKET
14.	997906	AAT41175	CAPACITOR, 35LASN, 4700
15.	997905	AAT41172	CAPACITOR, 35LASN, 1000
16.	998383	AA057575	TRANSFORMER
17.	998959	AA055700	FUSE HOLDER F400
18.	998029	AAT14029	RECTIFIER, S4VB
19.	998701	AA013610	TRANSORMER MOUNTING BOX
20.	998285	AA052535	TOGGLE SWITCH S-2A
21.	998956	AA055788	AC SOCKET BOX-TYPE
22.	998787	AA018506	GROMMET NG-79-E
23.	998873	AAM50012	COUNTER DRIVE P.C. BOARD ASSEMBLY
24.	998441	AA055720	PRINT CONNECTOR, 10P
25.	998667	AA013607	CONNECTOR & SWITCH BRACKET

ITEM:	PART NO:	REF. NO:	DESCRIPTION:
26.	998521	TV090010	INSULATOR
27.	998280	AA068717	TILT SWITCH
28.	998702	AA013613	SHIELD BOX
29.	800010	AAM60009	SWITCHING REGULATOR ASSEMBLY
30.	998703	AA013614	SHIELD COVER
31.	998962	AAT61017	NOISE FILTER ZMB2206-02
32.	998785	AA018555	GASKET
33.	998960	AA058581	FAN WEJ-55B4
34.	998385	AA057582	TRANSFORMER
35.	998585	AA069568	MOLD CORD BUSH
37.	998957	AA055784	FUSE HOLDER S-N2056
38.	998954	AA056508	EARTH TERMINAL T-375

COLOR SPACE INVADERS PART II



INSTALLATION INSTRUCTIONS

TAITO®

#960024

TAITO AMERICA CORPORATION
1256 Estes Avenue, Elk Grove Village, IL 60007

1. Name of Part (See Figs. 1 and 2)

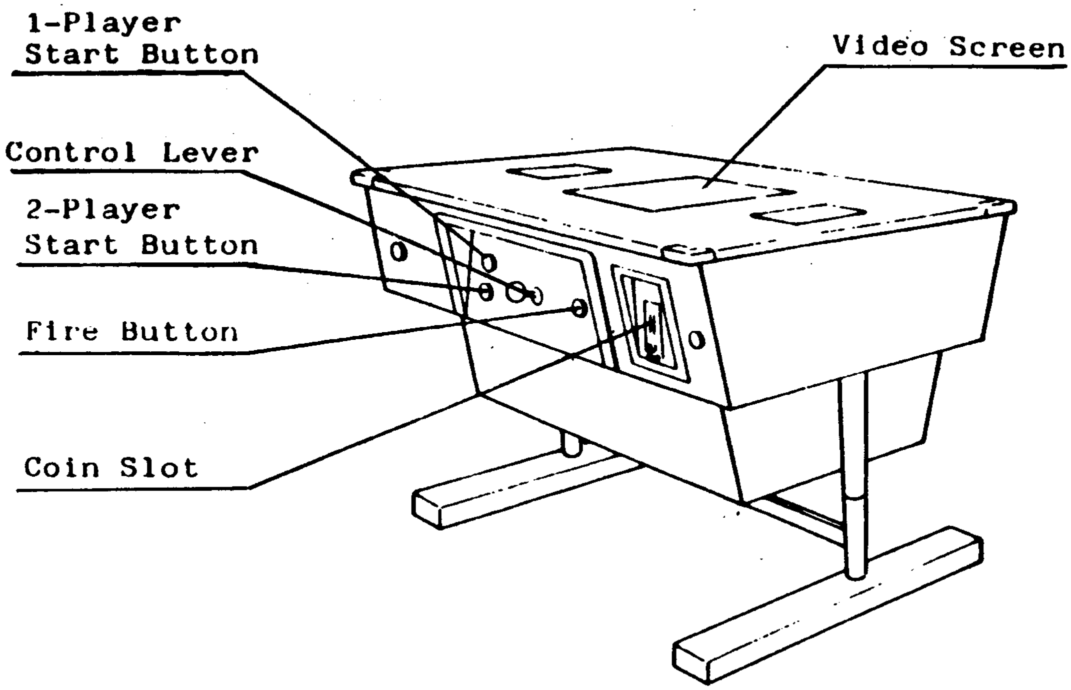


Fig. 1

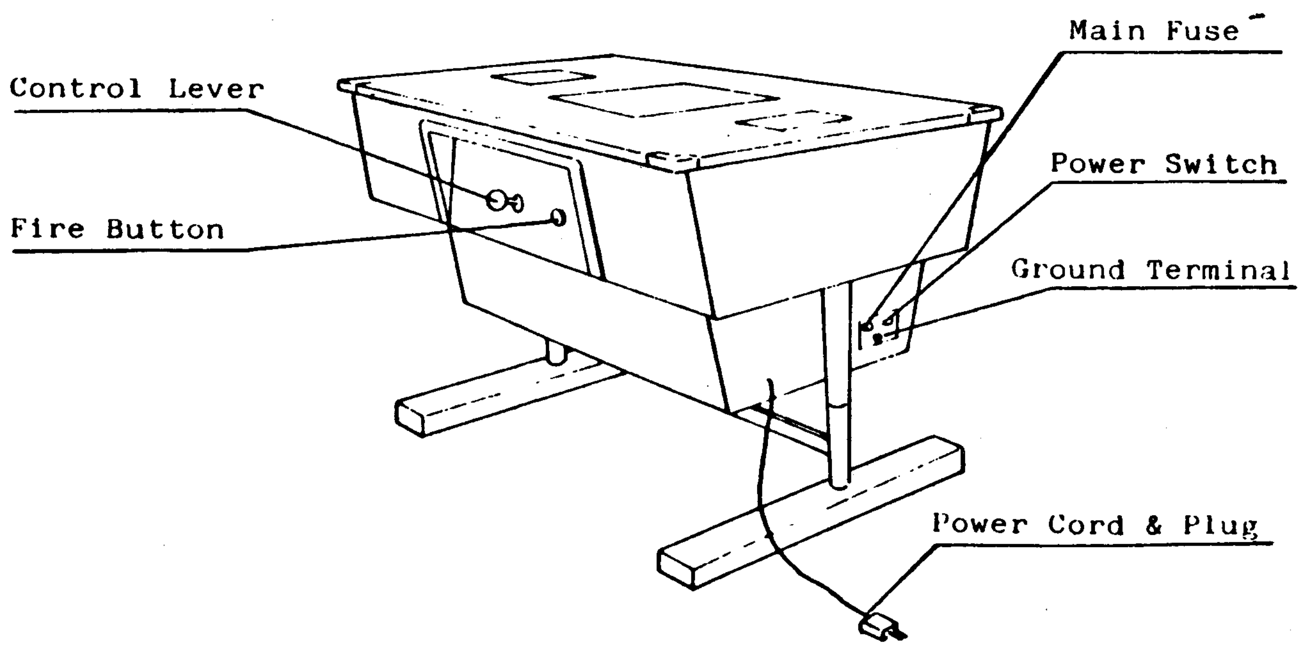


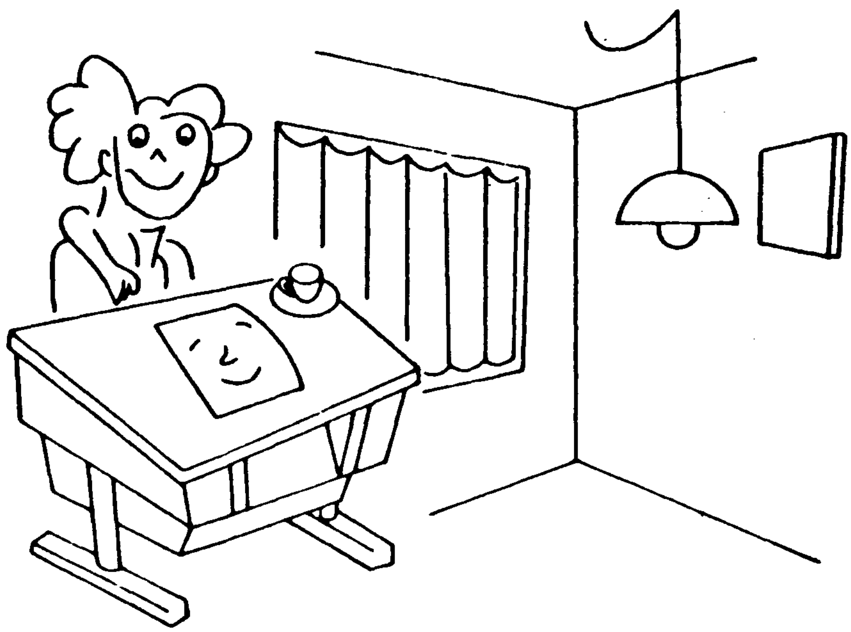
Fig. 2

2. Transportation and Installation

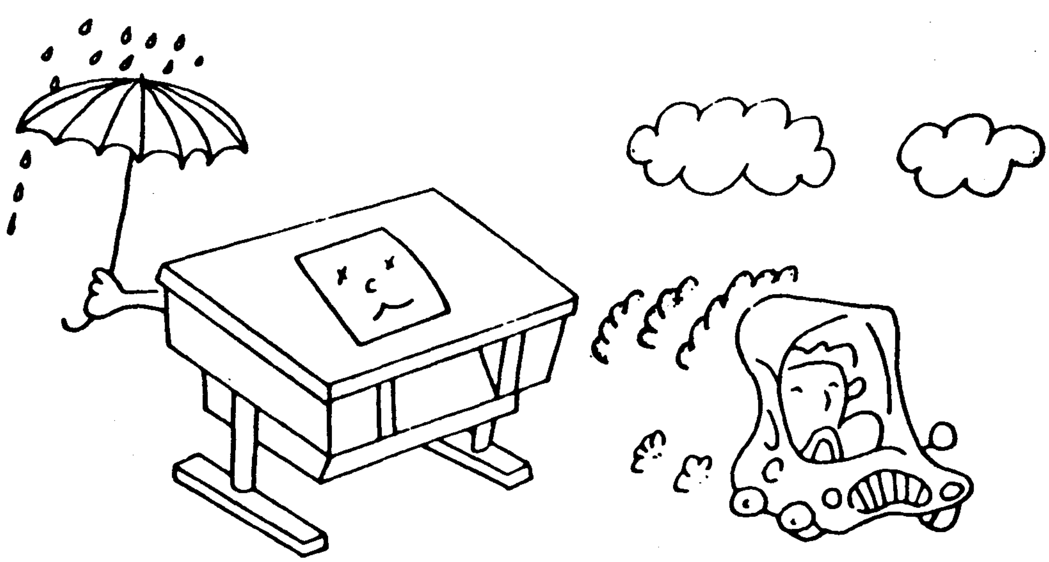
- o Avoid rough handling in Transportation; picture tube is fragile.

- o Taito "T.T. SPACE INVADER PART II " is for indoor use.

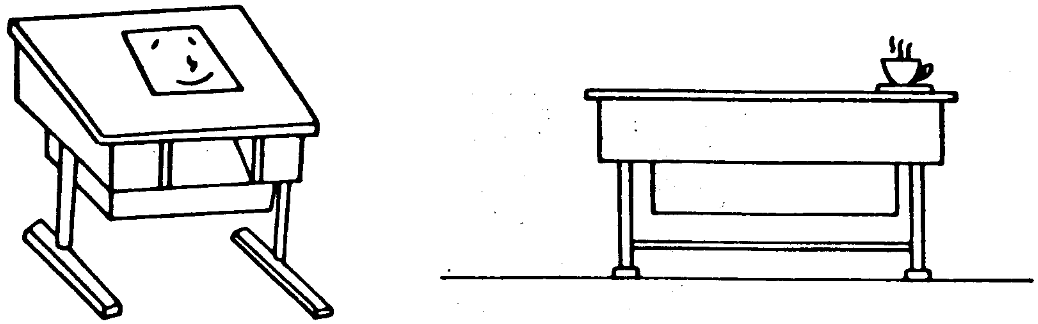
- o Install the machine indoors only.



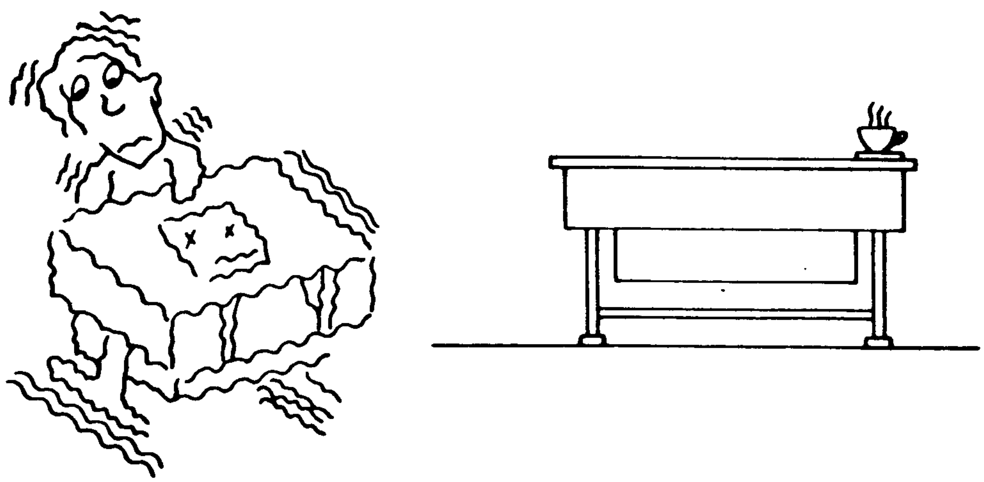
- o Do not install the machine outdoors.



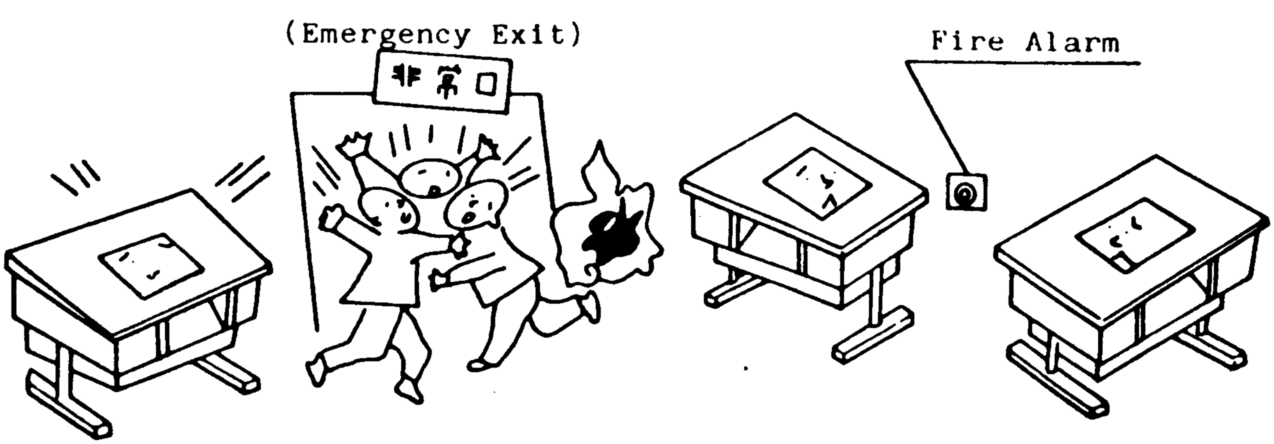
o Install the machine on a flat-surfaced floor and provided suitable space around the machine.



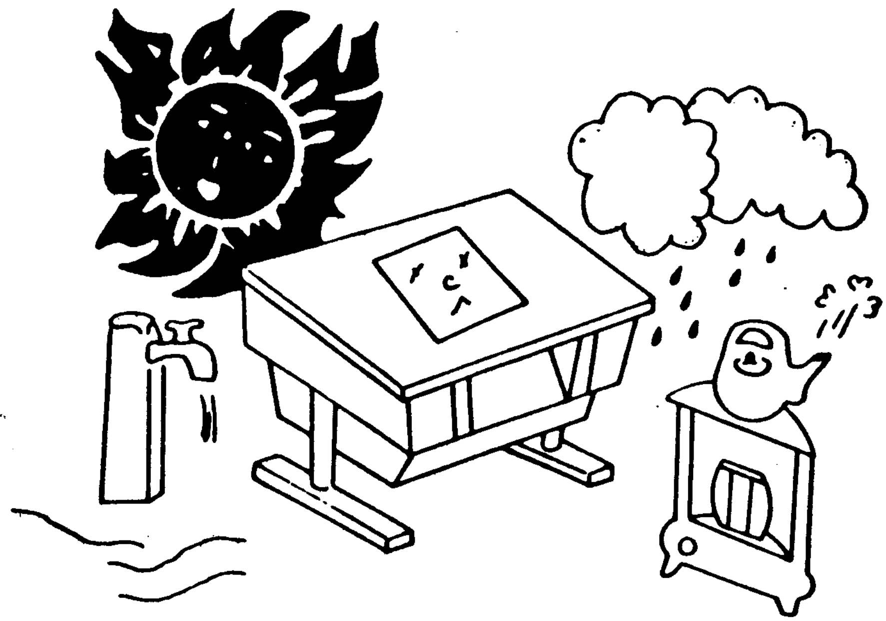
o Do not install the machine in location with vibration.



o Do not install the machine in dangerous places viewed from the angle of disaster prevention.



o Do not install the machine in location with exposure to direct sunlight or excessive heat in order to prevent the unit from rising internal temperature. Also, do not install the machine in humid or dusty places.



o Ensure all connections to the PCB's are secure.

o Never fail to connect the ground terminal.

o Insert the power plug into a proper outlet and turn the power switch on.

3. Handling Note and Warning

Note:

- o Erroneous picture may appear on the screen when the machine is first switched on. This is typical of the CPU circuitry, and will correct itself automatically when the power switch is off and on.

- o No picture may appear on the screen for a while when the machine is switched on at a subzero temperature in the location. This is also typical of the solid-state circuitry.

Warning:

- o Taito "T.T. SPACE INVADER PART II" uses a CPU and the latest solid-state circuitry for long life, however, as with sophisticated electronic equipment certain precautions must be observed to avoid damage.

  (1) Do not attempt to service with ordinary testing equipment, since the internal voltage of the testing equipment may cause damage to the circuitry.

  (2) Never connect or disconnect any of the solid-state modules while the power is on.

4. Routine Maintenance

- o Because of the solid-state electronic circuitry, this machine should require very little maintenance and only occasional adjustments, however, it is necessary to take measures to insure its daily safety.

Playing Instructions

o One or two Players.

o Insert coin(s).

1 coin - 1 play (3 laser bases... Adjustable)

2 coins - 2 plays(or 2 player game)

o Select one or two player game.

o As the "attacking sound" is heard, invaders appear on the screen. Also, a laser base and four fortresses appear on the lower side of the screen.

o To move the laser base left or right move the control lever

o To fire laser, push the fire button.

o In two player mode, the play alternates between the two.

o Scoring:

	.... 500 pts.
	.... ? ? ?
	.... 30 pts.
	.... 20 pts.
	.... 10 pts.

Functional description of Game:

o Invaders advance step by step against the laser base as they move left and right.

o Fortresses are gradually destroyed by the attack of invaders. They are also destroyed by laser.

o As the numer of invaders decreaes, they move fast.

o A MYSTERY-UFOhit gives the player mystery score (50, 100, 150, or 300 points).

o When score reaches 1,500 points(adjustable), a bonus laser base appears with "beep" sounds.

o UFO will randomly drop' invaders.

o When a invader is hit, it will be sometimes divided into two.

o Game ends when all laser bases are hit by invader missiles or when invaders overrun the base.

o High-score's name can be registered on the screen as follows: (Any dislike-sentence can be canceled by using the cancel button. However, the high score can not rubbed out.)

Method:

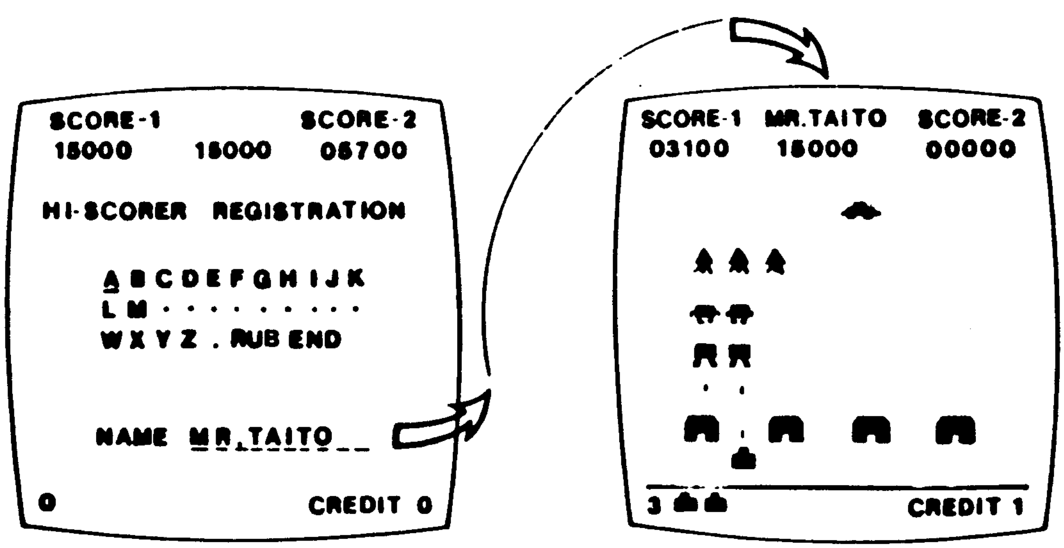
(1) The alphabets ("A"-"Z"), "RUB", and "END" will be displayed on the screen. By moving the control lever, move the red underline to the alphabet one by one so that the high-score's name can be spelled.

(2) An alphabet on the red underline can be resistered at a time on the screen by pushing the fire button

"RUB" ... If any wrong alphabet has been registered, move the red underline to the word "RUB", and push the fire button so that the alphabet will be controled.

"END" ... When finishing the high-scorer's name registration, move the red underline to the word "END" and push the fire button.

(3) The high-scorer's name register can be made within one and half minutes. After one and half minutes passed, the registration will be automalically stopped. (In total. ten alphabets can be registered.)



6. Adjustments on Power Supply P.C Board
(See Fig. 4)

Caution: The line voltages sholud be set within the limits.
Failure to do so may result in destruction of the IC's.

o To check the output voltages, measure them on the G-connector or the Q-connector.
(See the cable block diagram, AAR00189 in this manual.)

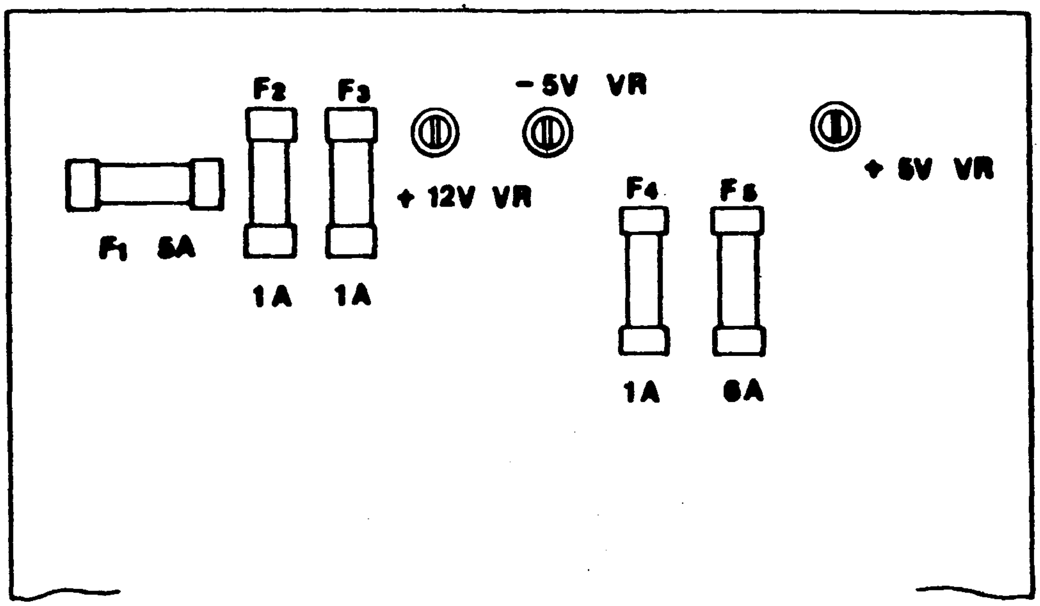


Fig. 4

o +5V VR ... Pot for adjusting 5V line voltage
(Adjustable range: 4.5V - 5.5V DC)
Set approx. 5V

o -5V VR ... Pot for adjusting -5V line voltage
(Adjustable range: -5.5V - -4.5V DC)
Set approx. -5V.
(When the 5V line has no load, this -5V voltage does not appear.)

o +12V VR ... Pot adjusting 12V line voltage
(Adjustable range: 10.8V - 13.2V DC)
Set approx. 12V.

7. Adjust ments on Game & Sound PC Board
(See Fig. 5 and Table 1)

To increase the sound, turn each pot(VR1 - VR8) as show below.

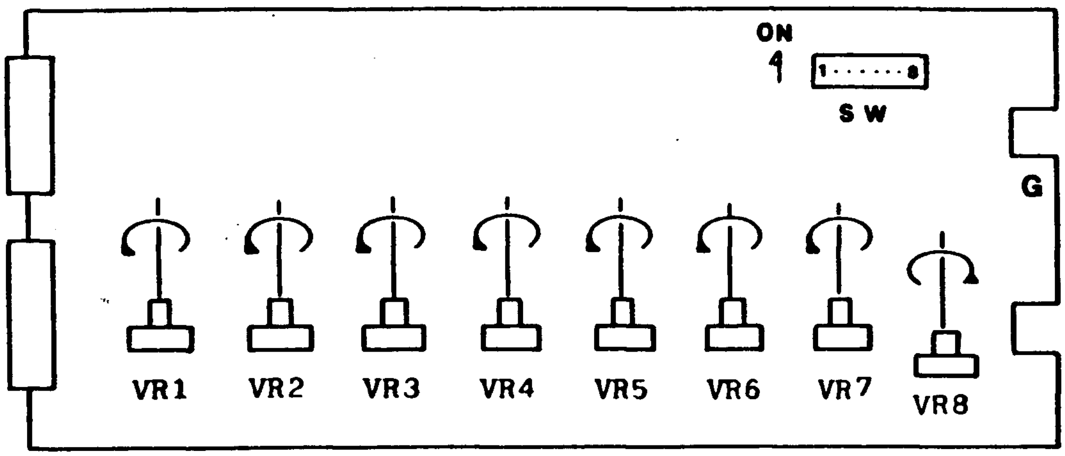


Fig. 5

- o VR1 ... Pot for adjusting volume of UFO.
- o VR2 ... Pot for adjusting volume of laser base when firing.
- o VR3 ... Pot for adjusting volume of laser base when destroyed.
- o VR4 ... Pot for adjusting volume of invaders when destroyed.
- o VR5 ... Pot for adjusting volume of "beep" when bonus is awarded.
- o VR6 ... Pot for adjusting volume of invaders when advancing.
- o VR7 ... Pot for adjusting volume of UFO when destroyed.
- o VR8 ... Pot for adjusting total sound volume.

Change-over for DIP Switchs:

o SW1 ... Switch for changing-over the number of laser bases.

SW1	Laser Bases
ON	3
OFF	4

Table 1

The number of laser bases is preset at "3" at the factory.

o SW2 ... Switch for rotating images on the screen.
When this switch is set at "ON" position, the images on the screen will be rotated.
This switch should be always set at "ON" position.

o SW3 ... Switch for adjusting the solid-state modules.
This switch is for the factory adjustments, and should be set at "OFF" position.

o SW4 ... Switch for checking
When the switch is set at "OFF" position, the checking can be done.
Normally, this switch is to be set at "ON" position.

o SW5, SW6, SW7 ... Switchs for adjusting the solid-state modules
These switch are for the factory adjustments, and should be always set at "ON" position.

o SW8 ... Switch for displaying the play-pricing (1 COIN 1 PLAYER, 2 COINS 2 PLAYERS) on the screen.
When the switch is set at "ON" positon, the play-pricing will be displayed.
This switch is preset at "ON" position at the factory.

8. Adjustments on Color Video Monitor (See Fig. 6)

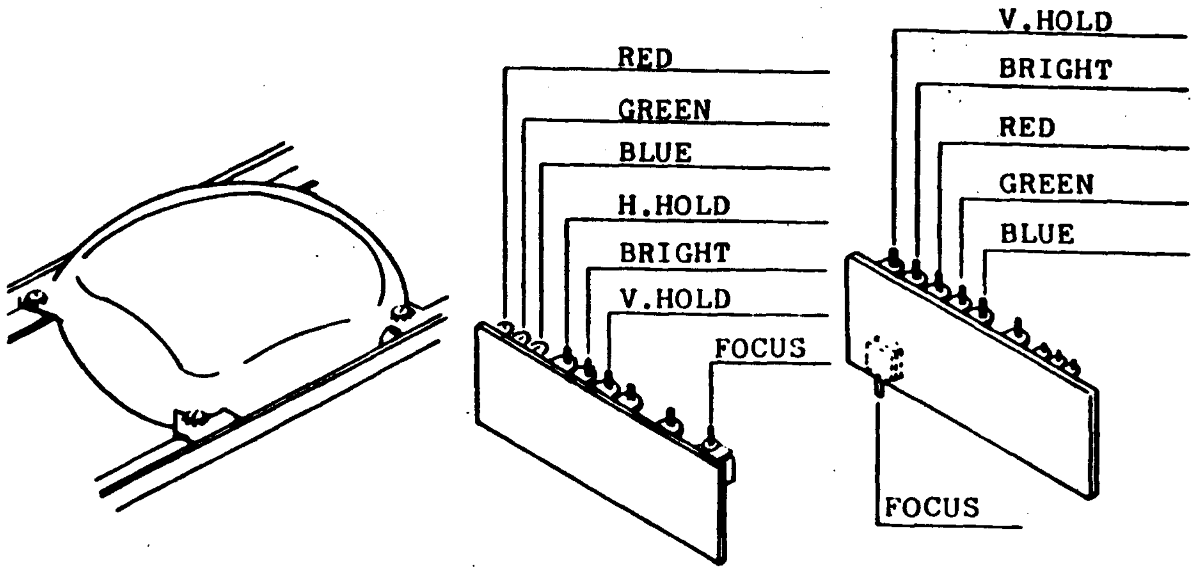


FIGURE 6

The color video monitor is properly adjusted before shipping, however, if necessary, readjust as follows:

Caution: Careful attention should be required to adjust the horizontal hold and the vertical hold, since these adjustments are delicate.

- Horizontal Hold
  Adjust the H. HOLD control if the picture is warped and broken into diagonal lines.
- Vertical Hold
  Adjust the V. HOLD control if the picture rolls vertically across the screen.
- Screen Brightness
  Adjust the BRIGHT control to keep the screen clear.
- FOCUS ... Screen Focus Control.

Color Control:

- RED... Pot for adjusting red color.
- GREEN... Pot for adjusting green color.
- BLUE... Pot for adjusting blue color.

Note: 1.) Color aberration may occur depending on the setting condition of the machine. In that case, use a degaussing device. Keep magnet away from the screen, otherwise it may result in color aberration.

2.) The color video monitor of Taito "T.T. SPACE INVADERS Part II" is for exclusive use, therefore, it can be replaced with that of ther models.

9. Adjustments of Supply Voltage (See Fig. 7)

If the voltage of the power supply is low, the picture on the screen sometimes flickers. In that case, change the terminal of the power transformer in the cabinet.
This adjustment is obtained by the use cf the cange-over switch.

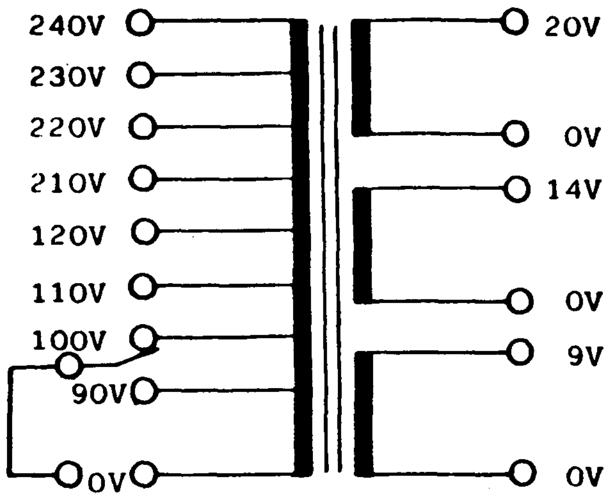


Fig. 7

10. Typical Picture During Play (See Fig. 8)

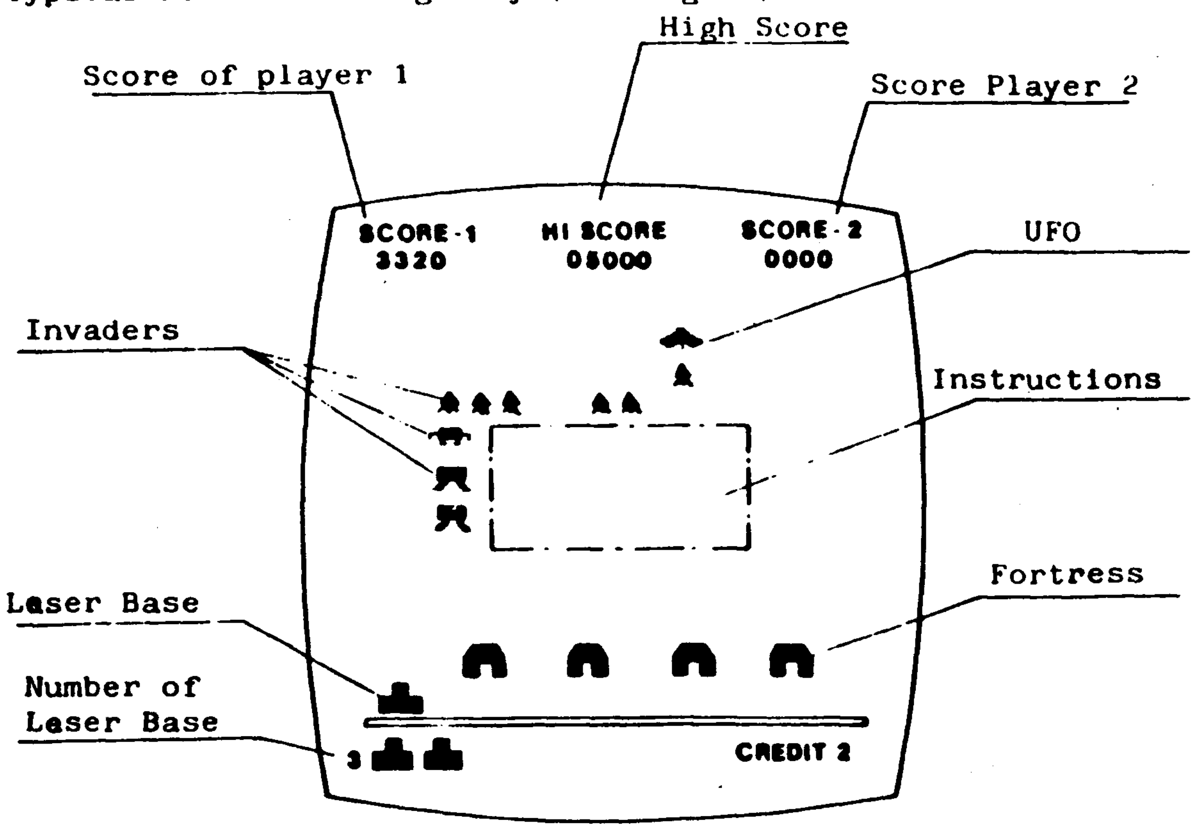
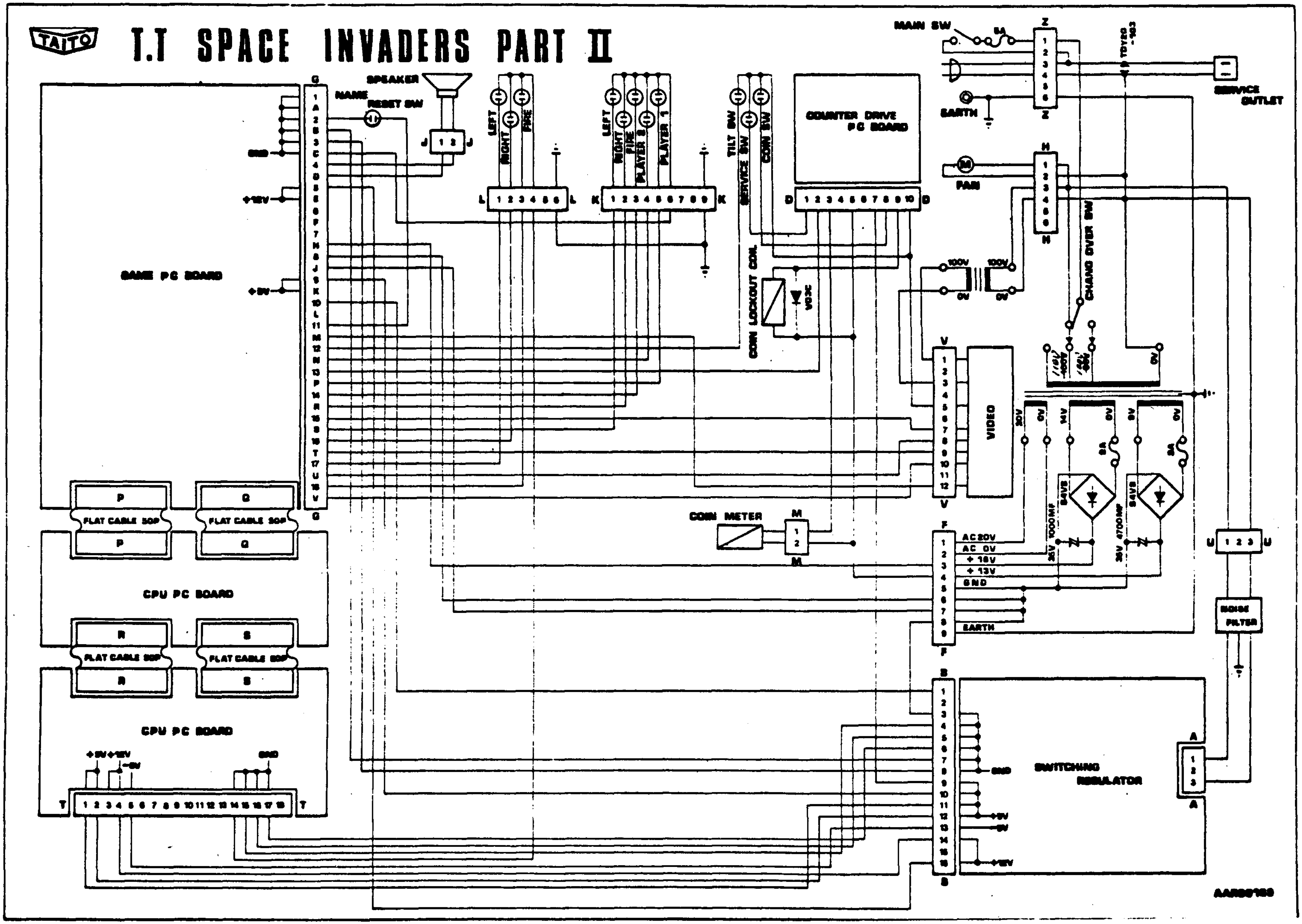


Fig. 8


TAITO
T.T SPACE INVADERS PART II
GAME PC BOARD
GND
+12V
+5V
SPEAKER
NAME RESET SW
LEFT
RIGHT
FIRE
PLAYER 2
PLAYER 1
TILT SW
SERVICE SW
COIN SW
COUNTER DRIVE PC BOARD
COIN LOCKOUT COIL
MAIN SW
EARTH
SERVICE OUTLET
FAN
CHANG OVER SW
100V
0V
VIDEO
FLAT CABLE 30P
CPU PC BOARD
COIN METER
AC 20V
AC 0V
+ 16V
+ 13V
GND
EARTH
NOISE FILTER
SWITCHING REGULATOR
+5V
-5V
+12V
S4VB
1000MF
4700MF
AA8O0189